

Application No. 10/029,189
Amendment "A" dated July 26, 2004
Reply to Office Action mailed February 25, 2004

REMARKS

Introduction

The Office Action mailed February 25, 2004 rejected claims 1-12, 14-21, 23-27, and 29, and objected to claims 13, 22, and 28. By this paper, claims 1, 11, 14, 20, and 25 are amended and claim 30 is new. Claims 1-30 are currently pending. Reconsideration and allowance for the above-identified application are now respectfully requested. The issues raised in the Office Action are addressed in the order raised by the Examiner.

Claim Rejections -- 35 U.S.C. § 112

Claim 11 was rejected under § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention in that "the act of applying the data blocks" has insufficient antecedent basis. In claim 11, "the act of applying the data blocks" has been amended to read "the act of restoring the data blocks" to provide antecedent basis. Applicant respectfully requests withdrawal of the rejection under § 112, second paragraph.

Claim Rejections -- 35 U.S.C. § 102

Claims 1-4, 7, 12, 20, 24-27, and 29 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,835,953 (Ohran). To anticipate a claim, the reference must teach every element of the claim. More specifically, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987). The following discussion illustrates that the claims are not anticipated by

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Ohran as the reference does not teach every element of the claim. In addition, the elements as set forth in the claims are not found in Ohran.

Ohran teaches a backup system that takes a snapshot of the locations in a mass storage device that has been identified for updating prior to updating. In order to perform a backup, Ohran uses a snapshot of the mass storage device. "A static snapshot is designed to preserve data as it exists at a particular point in time so that the data will be available after that particular point in time in its original state even though changes are made to the mass storage system after the snapshot time." *See* col. 11, lines 5-10.

More specifically, Ohran "captures the data as it exists when the snapshot is taken. The present invention does not try to send to the backup storage device the time sequence of changes that were made to the mass storage device." *See* col. 12, lines 12-16. Ohran "sends the last change that was made before the current backup time." *See* col. 12, lines 20-22. In Ohran, a snapshot is used to determine which storage locations have changed. As a result, the snapshot does not track the time sequence of changes. Ohran states: "All that is necessary is that the storage locations that have had new data stored in them since the last backup be able to be identified." *See* col. 13, lines 19-21.

In other words, the snapshot is used to identify storage locations that have changed since the previous snapshot without regard to the time sequence of changes. Thus, Ohran is not concerned with the time sequence of changes and does not try to send to the backup storage device the time sequence of changes.

Because Ohran only identifies storage locations that have changed since the snapshot, Ohran does not teach or suggest incrementally restoring a mass storage device in reverse chronological order as required by claim 1. Further Ohran does not teach or suggest "storing a

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copy of the existing data block in a preservation memory associated with the computer system”
for at least the same reasons.

As a result, claim 1 does not anticipate claim 1. For at least the same reasons, claims 20 and 25 are also believed to overcome the rejection under § 102. Claims 2-4, 7, 12, 24, 26-27, and 29 depend from one of claims 1, 20, and 25 and overcome the cited reference for at least this reason. The withdrawal of the rejection under § 102 is respectfully requested.

Claim Rejections – 35 U.S.C. § 103

The Office Action rejected claims 5-6, 8, 10, 14-16, and 18-19 under 35 U.S.C. § 103(a) as being unpatentable over Ohran in view of U.S. Patent No. 6,625,623 to Midgley. Claims 9, 11, 17, 21, and 23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohran and Midgley in view of U.S. Patent No. 5,608,684 (Reasoner).

As discussed above, Ohran uses a snapshot to identify data storage locations that have changed without concern of the time sequence of changes. This indicates that there is no motivation to combine Ohran with Midgley. However, the Office Action suggests that Midgley teaches a restore process that will restore the version of a source data file that existed at one point in time.

The restore process taught by Midgley, however, does not teach incrementally restoring a mass storage device in reverse chronological order. For example, Midgley teaches that the source files are being restored from the target data files. *See* col. 18, lines 39-41. The target files are the files stored on a back up server. *See* col. 2, lines 18-20. Thus, the target files do not correspond to data blocks in the preservation memory in the claims rejected under § 103.

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With this in mind, Midgley teaches that "the backup system will provide for transaction accurate restoration processes." *See* col. 18, ones 51-52. Thus, the target files are transactionally correct and Midgley only teaches a time slice of versions of files that existed at a particular moment in time. Midgley, however, does not teach that the target files can be used restoring the data blocks of the mass storage device to a previous state by incrementally applying the copies of the existing data blocks from the preservation memory to the plurality of data blocks of the mass storage device in reverse chronological order until the previous state is obtained. In other words, Midgley teaches that the target files can provide a time slice of versions of files. These transactionally correct files are not used to restore data blocks incrementally in reverse chronological order.

For at least these reasons, claims 5-6, 10, 14-16, and 18-19 are not taught or suggested by the combination of Ohran in view of Midgley.

Claims 9, 11, 17, 21, and 23 are rejected over Ohran and Midgley in view of Reasoner. Reasoner is directed to using a ROM as a secondary backup device to replace valid RAM data. The primary backup taught by Reasoner is a capacitor. *See* col. 2, lines 19-30. Further, the ROM is not able to incrementally restore RAM because when RAM loses power, all of the data is lost. The ROM provides protection in the case where power is lost. As stated by Reasoner, "The ROM provides long term data backup power for conditions in which the capacitor cannot maintain the necessary voltage output." *See* col. 3, lines 1-4.

For at least these reasons including the reasons discussed above, claims 9, 11, 17, 21, and 23 are not taught or suggested by the combination of Ohran and Midgley in view of Reasoner.

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Allowable Subject Matter

Applicant acknowledges that claims 13, 22, and 28 are objected to as being dependent upon a rejected base claim but would be allowable if rewritten independent form. New claim 30 is claim 13 rewritten in independent form.

Conclusion

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 26th day of July 2004.

Respectfully submitted,



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